

TSESEVICH, V.P.

Four variable stars. Astron. tsirk. no.175:16-17 D '56. (MIRA 10:5)

1. Odesskaya Astronomicheskaya Observatoriya.  
(Stars, Variable)

TSESEVICH, V.P.

Period of the eclipsing variable V 913 Ophiuchi. Astron. tsirk.  
no. 175:21 D '56. (MLRA 10:5)

1. Odesskaya Astronomicheskaya observatoriya.  
(Stars, Variable)

*Tsesevich, V.P.*

PHASE I BOOK EXPLOITATION

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Tsesevich, Vladimir Platonovich, Corresponding Member AN Ukr SSR

Astronomicheskiye problemy Mezhdunarodnogo geofizicheskogo goda (Problems of Astronomy During the International Geophysical Year) Moscow, Izd-vo "Znaniye", 1957. 39 p. (Vsescouznoye obshchestvo po rasprostraneniyu politicheskikh i nauchnykh znanii. Seriya VIII, 1957, no. 48) 50,000 copies printed.

Ed.: Fedynskiy, V. V., Professor; Ed. of Publishing House: Uspenskaya, N. V.;  
Tech. Ed.: Gubin, M. I.

PURPOSE: The booklet is intended to acquaint the general public with some of the problems to be investigated during the International Geophysical Year, especially those related to astronomical observations, and it gives some idea of the important work facing astronomers during 1957-58 in connection with IGY program.

COVERAGE: The booklet describes the problems and objectives of the current international Geophysical Year in relation to astronomy. It discusses the

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## Problems of Astronomy During the International Geophysical Year (Cont.)

structure and properties of the earth's lithosphere, hydrosphere and atmosphere as investigated by means of astronomical observations. The methods to be used include: study of meteors, interplanetary flight, artificial satellites and solar activity. The basic problem of the IGY program on solar research is to determine relationships between phenomena occurring in the sun and those occurring in the earth's atmosphere and in the earth itself, i.e., magnetic storms, auroras, and disturbances in the radio signals due to change in the ionosphere. To carry out these investigations the USSR has expanded its facilities as follows:

1. Installed a large horizontal solar telescope at Pul'kovo
2. Constructed a large vertical solar telescope at the Crimea Astrophysical Observatory
3. Organized two high altitude stations, one in the Caucasus near Kislovodsk and the other in Central Asia near Alm-Ata, to study the solar corona
4. Built Supplementary solar substations in L'vov, Central Siberia and the Far East in order to carry on continuous observations at various longitudes. With respect to equipment, instrument capacity and program these observatories are inferior to the Pul'kovo and Crimean observatories as their work is of a supplementary nature
5. In addition to the two main meteor observatories in Stalinabad and Ashkhabad, new astronomical observatories have been built near Kiyev, one near Odessa on the banks of the Dnestr, and the other on the shore of the Bay of Odessa.

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## Problems of Astronomy During the International Geophysical Year (Cont.)

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AVAILABLE: Library of Congress

Card 3/3

MM/gmp  
May 28, 1958

TSESEVICH, VLADIMIR PLATONOVICH

PHASE I BOOK EXPLOITATION

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Tsesevich, Vladimir Platonovich

Mezhdunarodnyy geofizicheskiy god (International Geophysical Year) Moscow, Gostekhizdat, 1957. 135 p. 50,000 copies printed.  
Eds.: Leshkovtsev, V.A., and Livshits, B.L.; Tech. Ed.:  
Brudno, K.F.

PURPOSE: The pamphlet is for the general reader.

COVERAGE: The pamphlet summarizes in popular form the main tasks and problems of the program of the International Geophysical Year (IGY). The author does not discuss individual Soviet achievements or contributions. However, there are scattered pieces of information on Soviet institutes and their agenda in connection with the IGY program. The observatories of Moscow, Pulkovo (Leningrad) and Tashkent regularly transmit correct-time signals. Studies of the composition of the outer atmosphere are conducted at 287 Soviet stations. Soviet seismological endeavor is centered at the observatories of

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International Geophysical Year

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Murmansk, Vyborg, Barentsburg (Spitsbergen), Petropavlovsk (Kamchatka), Vladivostok, and Yuzhno-Sakhalinsk. A map on page 54 shows the routes of the Soviet expedition ships Vityaz', Okean, Ob', Ekavator, Sevastopol', and Lomonsov. The author surveys in a very general way the recent Soviet expedition to Antarctica. Photographic observations of meteors has been assigned to the Ashkhabad Astrophysical Observatory, the Stalinabad Astronomical Observatory, the university observatories of Odessa and Kiyev, and the Main Astronomical Observatory of the USSR Academy of Sciences. Instrumental (i.e. photographic) observations of auroras are done at 33 Soviet stations, among them 2 drifting stations known as "Severnnyy polyus" and 3 stations in Antarctica. In addition, auroras are studied by radar observations at 5 other stations, one of which is established in the center of the Arctic. Zodiacal light is studied at the Ashkhabad Astrophysical Observatory. The All-Union Astro-Geophysical Society, under the auspices of the astronomic observatory of Leningrad University, studies the phenomenon of nacreous clouds. The author dedicates a whole chapter to the first two Soviet satellites. Atmospherics are studied at the following

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International Geophysical Year

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radio-goniometric points: Vladivostok, Voyeykovo, Minsk, Magdagachi (Amurskaya oblast'), Krasnaya Pakhra (southwest of Moscow), Khabarovsk, and Yuzhno-Sakhalinsk. Solar-corona studies have been developed at two stations established for this particular purpose near Kislovodsk and Alma-Ata. The stations also conduct observations on solar flares and radiation. Studies of solar spectrum are conducted at the Crimean Astrophysical Observatory, referred to by the author as one of the largest in Europe. The Crimean Observatory is equipped with a huge telescope; the photograph of the telescopic tower of this Observatory is on page 129. Two maps on pages 132 and 133 show the localities of the principal Soviet observatories conducting studies for the IGY program. There are altogether 44 drawings and illustrations, but no references.

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LEBEDEV, S.I., prof., doktor biolog.nauk, otv.red.; KOVBASYUK, S.M., dotsent, kand.istor.nauk; red.; PAZYUK, L.I., dotsent, kand.geologo-mineral. nauk, red.; KIRILLOV, Ye.A., prof., doktor fiziko-matemat.nauk, zasluzhennyy deyatel' nauki USSR, red.; TSESEVICH, V.P., prof., doktor fiziko-matemat.nauk, red.; LEONOV, I.G., dotsent, kand.istor. nauk, red.; VOROB'IEV, A.I., prof., doktor biolog.nauk, red.; GAVRILOV, N.I., prof., doktor fiziko-matemat.nauk, red.; MOROZOV, A.A., prof., doktor khim.nauk, red.; DANILENKO, K.Ye., dotsent, kand.filolog.nauk, red.; MIGAL', K.G., dotsent, kand.istor.nauk, red.; SMIRNOV, A.M., dotsent, kand.geograf.nauk, red.; BABICH, N.M., tekhn.red.

[Scientific yearbook for 1956] Nauchnyi ezhegodnik 1956 g. Odessa, (MIRA 12:4)  
1957. 388 p.

1. Odessa. Universitet. 2. Deystvitel'nyy chlen Ukrainskoy Akademii sel'skokhoz.nauk, zaveduyushchiy kafedroy fiziologii rasteniy Odesskogo gosudarstvennogo universiteta im. I.I.Mechnikova (for Lebedev). 3. Zaveduyushchiy kafedroy istorii Ukrainskoy SSR Odesskogo gosudarstvennogo universiteta im. I.I.Mechnikova (for Kovbasyuk). 4. Zaveduyushchiy (Continued on next card)

TSEDEVICH, V. R.

Mezhdunarodnyy Geofizicheskiy God (International Geophysical Year)  
Gostekhizdat, 1957.

The purpose of the book, as stated in the announcement, is to present in simple, readable form to a wide audience of readers the problems facing scientists during the IGY and how they will be solved. (Sovetskiye Knigi, No. 163, 1957, p. 32)

TSESEVICH, V.P.

FM Delphini, a Cepheid with a very short period. Astron.tsir.  
no.178:23 Mr '57. (MLRA 10:9)  
(Stars, Variable)

TSESEVICH, V.P.

Period of VZ Herculis. Astron. tsir. no.181:21-22 Je '57.  
(MIRA 13:3)

1. Odesskaya astronomicheskaya observatoriya.  
(Stars, Variable)

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TSSESEVICH, V.P.

Seven undesigned variable stars. Astron. tsir. no.182:17 Je '57.  
(MIRA 11:3)

1. Odesskaya astronomicheskaya observatoriya.  
(Stars, Variable)

TSHELEVICH, V.P.

Three RR Lirae stars. Astron. tsir. no.183:16-17 J1 '57. (MIRA 11:3)

1. Astronomiceskaya observatoriya, Odessa.  
(Stars, Variable)

TSESEVICH, V.P.

~~Periods of three eclipsing stars. Astron.tsir. no.184:22-23 S '57.~~  
~~(MIRA 11:4)~~

1. Odesskaya astronomicheskaya observatoriya.  
(Stars, Variable)

TSESEVICH, V.P.

Periods of six Cepheids. Astron.tair. no.185:21-22 0 '57.  
(MIRA 11:4)

1.Odesskaya astronomicheskaya observatoriya.  
(Cepheids)

TSESNICH, V.P.

Eleven uninvestigated variable stars. Astron.tsir. no.186:18 N '57.  
(MIRA 11:4)

1. Astronomiceskaya observatoriya v Mayakakh.  
(Stars, Variable)

TSBSENVICH, V.P.

Unusual variable star S 4732 Aurigae. Astron. tsir. no.187:20-21  
D '57. (MIRA 11:6)

1. Odesskaya astronomicheskaya observatoriya.  
(Stars, Variable)

TSESEVICH, V.P.

AG Draconis [with summary in English]. Per.zvezdy 11 no.2:103-110  
Ao '57. (MLRA 10:7)

1. Astronomicheskaya observatoriya Odesskogo gosudarstvennogo  
universiteta im. I.I. Mechnikova.  
(Stars, Variable)

TSESEVICH, V.P.

Three eclipsing variable stars [with summary in English]. Per.  
zvezdy 11 no.2:123-128 Ap '57. (MLRA 10:7)

1. Astronomicheskaya observatoriya Odesskogo gosudarstvennogo  
universiteta im. I.I. Mechnikova.  
(Stars, Variable)

TSESEVICH, V.P.

Periods of twenty eclipsing variable stars [with summary in English]. Per. zvezdy 11 no.6:403-438 Ny '57. (MIRA 12:1)

1. Astronomicheskaya observatoriya Odesskogo gosudarstvennogo universiteta imeni I.I. Mechnikova.  
(Stars, Variable)

26-58-4-16/45

AUTHOR: Tsesevich, V.P., Corresponding Member of the Ukrainian SSR Academy of Sciences

TITLE: On Changes in the Brilliance of the Second Artificial Earth Satellite (Ob izmenenii bleska vtorogo iskusstvennogo sputnika zemli)

PERIODICAL: Priroda, 1958, Nr 4, pp 78-79 (USSR)

ABSTRACT: Sputnik II, launched on November 3, 1957, shows a new unexpected property: its brilliance undergoes remarkable changes during orbiting. Sometimes its brilliance surpasses that of the Vega and sometimes it is hardly comparable to the light of the Polar Star. The author has been carefully watching this phenomenon and concludes that it must be due to the "sputnik's" spinning around its own axis in a tumbling movement. The brilliance is strongest when most of the satellite's surface is turned towards the observer and it diminishes as the size of the visible surface exposed to sunlight diminishes. Changes in the satellite's brilliance may also be influenced by extensive masses of clouds at high altitudes. A graph illustrates the frequency of changes in

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26-58-4-16/45

On Changes in the Brilliance of the Second Artificial Earth Satellite

the "sputnik's" brilliance over a period of observation.  
There is 1 graph.

ASSOCIATION: Odesskaya astronomiceskaya observatoriya (The Odessa Astronomical Observatory)

AVAILABLE: Library of Congress

Card 2/2      1. Sputnik II-Reflective effects    2. Satellite vehicles-USSR

SESEVICH, V.P.

A remarkable variable star S4732 Aurigae. Per.zvezdy 12 no.4:  
306-308 Je '58. (MIRA 13:4)

1.Odessa astronomical observatory.  
(Stars, Variable)

~~TSERENVICH, V.P.~~

Letter to the editor, Astron. tsir. no. 188:27-28 Ja '58.  
(Stars, Variable) (MIRA 11:6)

TSESEVICH, V.P.

Periods of stars SPZ 499 Cygni and YY Boötis. Astron. tsir.  
no.189:14-15 F '58. (MIRA 11:8)

1.Odesskaya astronomicheskaya observatoriya.  
(Stars, Variable)

TSESEVICH, V.P.

Rotation of the second artificial satellite about the axis.  
Astron. tsir. no.190:5 Mr '58. (MIRA 11:9)

1. Odesskaya astronomicheskaya observatoriya.  
(Artificial satellites)

SOV/169-60-1-998

Translation from: Referativnyy zhurnal, Geofizika, 1960, Nr 1, p 133 (USSR)

AUTHORS: Tsesevich, V.P., Satanova, E.A., Grigorevskiy, V.M.

TITLE: On the Problem of Revolution of the <sup>W</sup>Second Artificial Satellite

PERIODICAL: Astron. tsirkulyar, 1958, May 8, Nr 191, pp 6 - 8

ABSTRACT: The instants of maximum brightness of the second Soviet satellite  
are presented from photometric observations<sup>W</sup>carried out by the  
Odessa Astronomic Observatory.



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TSESEVICH, V.P.

Periods of HU Persei. Astron. tsir. no.191:16 My '58. (MIRA 11:9)

1. Odesskaya astronomicheskaya observatoriya.  
(Stars, Variable)

TSESEVICH, V.P.

SPZ 850 Aquilae. Per.zvezdy 12 no.5:368-370 II '58. (MIRA 13:9)

1. Odesskaya astronomicheskaya observatoriya.  
(Stars, Variable)

81451

SOV/35-59-8-6255

3.1560

Translation from: Referativnyy zhurnal, Astronomiya i Geodeziya, 1959,  
Nr 8, p 22

AUTHOR: Tsesevich, V.P.

TITLE: On Five Stars of the RR Lyrae Type

PERIODICAL: Astron. tsirkulyar, 1958, May 26, Nr 192, pp 27 - 28

ABSTRACT: The following stars were studied from Moscow and Odessa photographs: 1) Two systems of elements were obtained for 347 Her: Max JD = 2415288.21 +0<sup>d</sup>.5373619 E.  
Max JD = 2436104.27 +0<sup>d</sup>.5373136 E.  
2) EN Lyr. All the maxima are represented by the following elements: Max JD hel = 2433829.402 + 0<sup>d</sup>.52739716 E. 3) SPZ 867 Lyr. From the observations of N.B. Perov and the author, the following elements were obtained: Max JD hel = 2436079.374 + 0<sup>d</sup>.6820293 E. The photographic amplitude was  $\sim 1.^m2$ , whereas the visual amplitude was only 0.^m2 (obtained from observations in 1945). 4) SPZ 1022 Lur. The following elements were obtained: Max JD hel = 2417852.251 + 0. 5877888 E. 5) SPZ 1024 Dra. Old

Card 1/2

On Five Stars of the RR Lyrae Type

81451  
SOV/35-59-8-6255

observations are represented by the following elements: Max JD hel =  
 $2436075.204 + 0^d.6871860$  E, the new observations are represented by the  
following elements: Max JD hel =  $2436075.224 + 0^d.6871941$  E. Apparently  
the period has undergone a jump-like change.

N.P. Kukarkina

✓

Card 2/2

SOV/35-59-8-6256

Translation from: Referativnyy zhurnal, Astronomiya i Geodeziya, 1959,  
Nr 8, p 22

AUTHOR: Tsesevich, V.P.

TITLE: On the Period of V 759 Cygni ✓

PERIODICAL: Astron. tsirkulyar, 1958, July 3, Nr 193, pp 23 - 24

ABSTRACT: This is a report on the jump-like change in the period of the  
variable V759 Cyg. After an increase by 0<sup>d</sup>.00004105 the period  
retains its constant value. Sixteen moments of maxima are given.

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SOV/35-59-8-6260

Translation from: Referativnyy zhurnal, Astronomiya i Geodeziya, 1959,  
Nr 8, p 22

AUTHOR: Tsesevich, V.P.

TITLE: SPZ 850 Aquilae ✓ a Bright Cepheid

PERIODICAL: Astron. tsirkulyar, 1958, July 3, Nr 193, pp 25 - 26

ABSTRACT: The estimates of the luminosity of the star SPZ 850 Aql made  
from all the Moscow and Odessa photographs and from the visual  
observations of the author in 1958, give the following elements:  
Max JD = 2436341.31 + 13<sup>d</sup>.44155 E.

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SOV/35-59-8-6248

Translation from: Referativnyy zhurnal, Astronomiya i Geodeziya, 1959,  
Nr 8, p 21

AUTHOR: Tseseevich, V.P.

TITLE: V 620 Cygni

PERIODICAL: Astron. tsirkulyar, 1958, August 26, Nr 194, pp 27 - 28

ABSTRACT: The following elements of the variable star V 620 Cyg: min JD =  
= 2415290.27 + 6<sup>d</sup>.267268E were obtained from the Moscow plates  
and visual estimates. Algol. Three photographic and five  
visual moments of minima are given in the interval JD 2415290 -  
36373. ✓

N.B.P.

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81444

SOV/35-59-8-6241

3.1560

Translation from: Referativnyy zhurnal, Astronomiya i Geodeziya, 1959,  
Nr 8, p 20AUTHOR: Tsesevich, V.P.TITLE: On Six Unstudied Stars of the Algol Type

PERIODICAL: Astron. tsirkulyar, 1958, September 18, Nr 195, pp 19 - 20

ABSTRACT: From plates of the Moscow and the Odessa Observatories, 6  
variables were studied. For all the stars the moments of minima  
and elements are given.

Stars	Initial epoch	P
	Min JD	
BQ Her	2436104.23	5 <sup>d</sup> .105836
KZP 3483	36069.259	1 <sup>d</sup> .4285133
KZP 4551	36053.36	2 <sup>d</sup> .201478
KZP 4583	36084.34	1 <sup>d</sup> .5421126
KZP 4840	36395.468	0 <sup>d</sup> .44152359
KZP 5692	36057.508	2 <sup>d</sup> .07104

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SOV/35-59-8-6247

Translation from: Referativnyy zhurnal, Astronomiya i Geodeziya, 1959,  
Nr 8, p 21

AUTHOR: Tsesevich, V.P.

TITLE: On the Change in Period of SS Ceti

PERIODICAL: Astron. tsirkulyar, 1958, September 18, Nr 195, p 21

ABSTRACT: A summary is published of all the known minima observed by  
different authors. New elements are derived: Min hel JD =  
= 2429321.250 + 2<sup>d</sup>.9739509E. The O-C graph shows that the  
period might have changed by a jump.

V.P.F.

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SOV/35-59-8-6234

Translation from: Referativnyy zhurnal, Astronomiya i Geodeziya, 1959,  
Nr 8, p 19

AUTHOR: Tsesevich, V.P.

TITLE: A New Variable Star, SPZ 1248

PERIODICAL: Astron. tsirkulyar, 1958, September 18, Nr 195, pp 21 - 22

ABSTRACT: The author reports the discovery of a new variable star:  
 $\alpha = 16^{\text{h}}26^{\text{m}}22^{\text{s}}$ ;  $\delta = +23^{\circ}39'0$  (1900). The elements:  
Max = JD = 2436344.489+0<sup>d</sup>.61902E. The limits of the change  
in luminosity are 13<sup>m</sup>.2-14<sup>m</sup>.2. Eleven epochs of maxima are  
given.

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TSESEVICH, V.P.

Three RR Lyrae-type stars. Astron. tsir. no.196:11-13 0 '58.  
(MIRA 12:12)

1.Odessa kaya astronomicheskaya observatoriya.  
(Stars, Variable)

SCV-26-52-10-17/51

AUTHOR: Tsesevich, V.P., Professor, Corresponding Member of the Ukr SSR Academy of Sciences

TITLE: The Astronomical Observatory on the Dnestr (Astronomiceskaya observatoriya na Dnestre)

PERIODICAL: Priroda, 1958, Nr 10, pp 86-87 (USSR)

ABSTRACT: In connection with the work to be carried out for the International Geophysical Year, an Astrophysical Observatory was set up in Mayaki, Belyayevskiy rayon. The Observatory consists of a laboratory, 3 telescope pavilions, a radar assembly and other auxiliary installations. Pavilion 1 contains the meteor tracker, invented by Candidate of Physico-mathematical Sciences, Ye.N. Kramer, consisting of a set of 3 cameras which record meteor trails as a trace arc on the film. The assembly is fitted with a 3-leaf obturator which covers the lenses at a rate of 50 - 60 times a second. The meteor's trail is thus registered on the film in the form of a dotted arc. Analysis of the size of the breaks in the trail makes it possible to calculate the meteor's speed and the braking effect exerted by the Earth's atmosphere. During filming, the position of the third leaf varies in relation to the

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The Astronomical Observatory on the Dnester

SOV-26-58-10-17/51

other two. Its shift is proportional to the filming time and the breaks in the dotted trail thus assume different forms, depending on the moment of the meteor's flight. Pavilion 2 contains a multi-camera astrograph with its cameras fanned out to cover a wide sector of the sky. The astrograph produces point images of the stars. Pavilion 3 is equipped with a 200-mm refractor. The laboratory has a special radar assembly built at the Odessa Observatory and used for recording the radio echo from passing meteors. Corresponding stations are situated at Kryzhanovka and in the Botanical Gardens. As in Pavilion 1 they also record meteor trails, but the cameras are not fitted with obturators. Their photos are used for comparison and to achieve greater accuracy.

There is 1 photo.

ASSOCIATION: Odesskiy Gosudarstvennyy universitet (Odessa State University)

- 1. Astronomical observatories--USSR
- 2. Meteors--Photography
- 3. Astronomical cameras--Applications

Card 2/2

PHASE I BOOK EXPLOITATION

SOV/3812

Tsesevich, Vladimir Platonovich

Pershi pidsumky Mizhnarodnoho geofizychnoho roku (First Results of the International Geophysical Year) Kyyiv, 1959. 49 p. (Series:Tovarystvo dlya poshyrennya politychnykh i naukovykh znan' URSR . Seriya 5, No. 23) 25,600 copies printed.

General Ed.: Sh. H. Hordeladze, Candidate of Physics and Mathematics;  
Ed.: I.M. Semernya

PURPOSE: This book is intended for scientific workers engaged in geophysics, astronomy and related branches of science, as well as for the general reader.

COVERAGES: The author briefly summarizes the results of work done through international scientific cooperation during the IGY. The results of observations of meteorites, studies of noctilucent clouds, investigations of the earth's magnetic field and investigations of cosmic rays are included. The

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## First Results of the International (Cont.)

SOV/3812

following Soviet scientists are mentioned in connection with the IGY: I.N. Kramer, astronomer and inventor of an automatic device for photographing meteorites; I.S. Astapovich, leading astronomer in Ashkhabad; B.L. Kashcheyev, director of the Polytechnical Institute in Khar'kov; Professor I.A. Khvostikov, author of the theory explaining luminous clouds, and V.V. Sharov, director of the Leningrad Astronomic Observatory. There are no references.

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AVAILABLE: Library of Congress

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8-5-60

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TSESEVICH, V I

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PHASE I BOOK EXPLOITATION

SOV/3615

Tsesevych, Vladimir Platonovich

Pidkorennya kosmosu (Conquest of the Universe) [Odesa] Odes'ke knyzhkove vyd-vo, 1959. 70 p. 7,000 copies printed.

Ed.: M. Rubin; Tech. Ed.: T. Molchanova.

PURPOSE: This booklet is intended for the general reader interested in astronomy and space exploration.

COVERAGE: The booklet describes the structure of the universe and the laws governing the motion of celestial bodies. It stresses the progress of Soviet science in space pointing out the successful launching of the three Soviet earth satellites and the cosmic <sup>to</sup> rocket. It also describes the contributions of K.E. Tsiolkovskiy (Deceased) rocket technology and interplanetary travel. The author is a Corresponding Member of the Academy of Sciences, Ukrainian SSR. There are no references.

~~Case 173~~

122222-1974, v. 1.  
29(5) p. 3

PHASE I BOOK EXPLOITATION SOV/3312

Akademiya nauk SSSR. Astronomicheskiy sovet.

Byulleten' stantsiy opticheskogo nablyudeniya iskusstvennykh sputnikov zemli,  
no. 7 (Bulletin of Stations for Optical Observation of Artificial Earth  
Satellites, nr. 7) Moscow, 1959. 29 p. 500 copies printed.

Resp. Ed.: Ye.Z. Gindin; Editorial Secretary: O.A. Severnaya

PURPOSE: The book is intended for scientists engaged in earth-satellite research  
and for students of astronomy.

COVERAGE: The collection of articles summarizes the results of observations of  
the Soviet earth satellites. The treatment includes: methods of observation,  
moments of maximum visibility, devices and cameras used, tables with data.  
There are numerous figures and some Soviet references. Each article in this  
collection is accompanied by an English annotation.

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Tol'skaya, V.A., Council on Astronomy, Academy of Sciences, USSR. Meeting (Con-  
ference) of Heads of Stations for Observation of Artificial Earth Satellites 1

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Bulletin of Stations (Cont.)

SOV/3312

The article reports on the conference of heads of stations for observation of artificial earth satellites, which took place in Moscow, 15-17 April, 1959. The introductory speech was made by A.G. Masevich, acting chairman of the Council on Astronomy, Academy of Sciences, USSR, who summarized achievements in methods of observation, described the practice of exchanging data among individual stations and reported on the publishing of such data in special bulletins. A paper on the "Characteristics of Satellite Orbits" was read by A.A. Mashkov, stressing the importance of the obliquity of the ecliptic in determining the velocities of interplanetary flights. A report on the "Application of Results Obtained From Optical Observations of Artificial Earth Satellites" was read by Yu.V. Batrakov of the ITA (Institute of Theoretical Astronomy [Leningrad]). Batrakov reported on programming of data in electronic computers, on the construction of graphs showing changes of certain physical elements (e.g., atmospheric resistance) with time and the irregularity of such changes, and on photographic observations. The present practice of processing photographic data as well as photometric methods of observations were the subject of the paper by Professor V.P. Tsesevich of Odessa. A new instrument for determining the brightness of artificial earth satellites was described by V.V. Shmeling of Riga. A.A. Kiselev of the GAO [Main Astronomical Observatory, Leningrad-Pulkovo] introduced a method for determining the direction of the

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Bulletin of Stations (Cont.)

SOV/3312

axis of rotation of sputniks. A number of improvements in observation methods were suggested by A.Ya. Virin of Smolensk, S.A. Leshakov of Petrozavodsk, and A.G. Sukhanov of Vladivostok. Coordinate systems and measuring equipment were discussed by V.N. Ivanov of Krasnodar, V.V. Shmeling of Riga, Ya.E. Eynasto of Tartu, A.K. Osipov of Kiyev, V.I. Kuryshev of Ryazan', V.A. Sorokin of Khabarovsk, G.D. Kvirkveliya of Tbilisi, and A.M. Isayev of Baku. Methods of tabulation and computation of the ephemeris were discussed by V.Ye. Solov'yev of Dnepropetrovsk and I.A. Klimishin of L'vov. Differences in methods and equipment for photographing artificial earth satellites at observation stations, and data on cameras used at Omsk, Orenburg (Chkalov), L'vov, Vologda, Yuzhno-Sakhalinsk, and Kzyl-Orda, are discussed. Two names are mentioned: K.N. Kan of Yuzhno-Sakhalinsk and S.Kh. Khusainov, chief of the observation station at Kzyl-Orda. The organizational aspect of observations was discussed by Ye.Z. Gindin, scientific secretary to the Astronomic Council, Academy of Sciences, USSR, who stressed the importance of data obtained from sputnik observation stations in the study of astronomy at schools of higher technical education.

Tsesevich, V.P. Brightness Variations of Rocket Carriers.

The author discusses the variation in brightness and their dependence on the changes in the axis-direction of sputniks. Data collected from 33 observation points (localities are given) were processed at the Astronomical Observatory.

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Bulletin of Stations (Cont.)

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tory of Odessa. The present article discusses the methods applied to the processing of the above data and presents two theories: one on the specular and another on the diffuse reflection of light. Both theories are applicable to solving the problem of brightness variations.

Tsesevich, V.P. Rotation Period of the Rocket Carrier of the Third Soviet Sputnik 8  
A linear expression for rotation periods based on data from 5 observation stations is derived, applicable to the moments of maximum brightness of sputnik III. Variations were registered throughout the month of August, 1958. The derived expression is subject to discussion. The study was conducted at the Astronomical Observatory of Odessa.

Grigorevskiy, V.M. Photometric Methods of Studying Artificial Earth Satellites 14  
The study was conducted at the Astronomical Observatory of Odessa. Several methods are discussed and evaluated, but no positive conclusions drawn. The methods discussed were used in observations of both the second and third Soviet satellites. Data collected by V.P. Tsesevich of Odessa and B.M. Gimel'farb of Arkhangel'sk are analyzed. A method based on the study by V.P. Tsesevich for photometric observation of satellites with considerable brightness variations is presented. There are 6 Soviet references.

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TSESEVICH, V.P.

3(1)

PHASE I BOOK EXPLOITATION

SCV/3010

Vsekhsvyatskiy, Sergey Konstantinovich, and Vladimir Platonovich Tsesevich

Radyans'ka astronomiya pro sonse, zirky ta planety (Soviet Astronomy of the Sun, Stars, and Planets) Kyyiv, 1959. 36 p. (Series: Tovarystvo dlya poshyrennya politychnykh i naukovykh znan' Ukrayins'koyi RSR. Ser. 5, no. 8) 25,800 copies printed.

General Ed.: Sh. G. Gordeladze; Ed.: A.Ya. Ver.

PURPOSE: This booklet is intended for the general public.

COVERAGE: The booklet describes the development of astronomy under the Soviet regime and explains the achievements of Soviet scientists in their study of the Sun, the stars, and the planets. Among the scientists mentioned are: Ye. Ya. Bugoslavska, S.B. Pikel'ner, A.B. Severniy, V.A. Ambartsumyan, V.V. Sobolev, M.O. Kozyrev, E.R. Mustel', B.V. Kukharkin, D.Ya. Martinov, P.P. Parenago, Academician V.G. Fesenkov, M.P. Barabashev, V.V. Sharonov, G.A. Tikhov, A.G. Masevich, and Academician G.A. Shayn, who died in 1956. There are no references.

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Soviet Astronomy of the Sun (Cont.)

TABLE OF CONTENTS:

Introduction	
Development of Astronomy in the USSR	3
Study of the Sun by Soviet Scientists	
Nature of the Stars According to Soviet Astronomers	7
Structure of the Stellar System According to Soviet Scientists	15
New Data on the Nature of the Planets	27
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SOV/3010

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TM/gmp  
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S/169/60/000/011/001/016  
A005/A001

Translation from: Referativnyy zhurnal, Geofizika, 1960, No. 11, p. 2, # 13266

AUTHOR: Tsesevich, V.P.

TITLE: On the Participation of the Odesskaya Astronomicheskaya Observato-  
riya (Odessa Astronomical Observatory) in the Fulfilment of the  
Program of the International Geophysical Year

PERIODICAL: Tr. Odessk. un-ta 1959, Vol. 149; Izv. Astron. observ., Vol. 5,  
No. 1, pp. 5-8

TEXT: The Astronomicheskaya Observatoriya Odesskogo Gosudarstvennogo  
Universiteta (Astronomical Observatory of the Odessa State University) performed  
during the International Geophysical Year and the International Geophysical Season  
the part of the guiding institution in the problem of meteor research. On the  
basis of the materials obtained from the institutions which worked on the problem  
mentioned, monthly summaries were compiled by the Odessa Observatory, they were

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S/169/60/000/011/001/016  
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On the Participation of the Odesskaya Astronomicheskaya Observatoriya (Odessa Astronomical Observatory) in the Fulfilment of the Program of the International Geophysical Year

then delivered to the Mirovoy Tsentr (International Center) collecting the data. From all these materials, a Catalog of the meteor activity during the IGY-period was compiled. During the IGY-period, regular observations of meteors were performed at three stationary observation points of the Odessa Observatory.

Translator's note: This is the full translation of the original Russian abstract.

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S/035/61/000/003/024/048  
A001/A101AUTHOR: Tsesevich, V.P.

TITLE: On the problem of processing radar observations of meteor echoes

PERIODICAL: Referativnyy zhurnal. Astronomiya i Geodeziya, no. 3, 1961, 49, abstract 3A426 ("Tr. Odessk. un-ta", 1959, v. 149; "Izv. Astron. observ.", v. 5, no. 1, 9 - 23)

TEXT: The author derives formulae for calculating the number of meteors recorded by radar in dependence on the position of the stream radiant on the celestial sphere and antenna directivity diagram for two cases, stationary and rotating antenna. He proposes the method of determining antenna directivity diagrams from distribution of meteor radio echoes in inclined distances. As examples, he determines the directivity diagram of a rotating antenna employed in Kazan' for observations of Geminids in 1958 at a wavelength of 8 m and the directivity diagram of a stationary antenna which was employed in 1957 for observations of Geminids at the Khar'kov Polytechnical Institute.

V. Lebedinets

X

[Abstracter's note: Complete translation]

Card 1/1

TSESEVICH, V.P.

Advice to observers of variable stars, Astron. tsir. no.199:30-31  
Ja '59. (MIRA 13:2)  
(Stars, Variable)

TSESEVICH, V.P.

Two uninvestigated variables. Astron. tmir. no.201:16 Ap '59.  
(MIRA 13:2)

1.Odesskaya astronomiceskaya observatoriya.  
(Stars, Variable)

TSMSEVICH, V.P.; MANDEL', O.Ye.

Two RR Lyrae-type stars. Astron.tsir. no.209:26 Mr '60.  
(MIRA 13:9)

1. Odesskaya astronomicheskaya observatoriya. "Mayaki."  
(Stars, Variable)

TSESEVICH, V.P.

Period of S Comae Berenices. Astron.tsir. no.209:27 Mr '60.  
(MIRA 13:9)

1. Odesskaya astronomicheskaya observatoriya.  
(Stars, Variable)

TSESEVICH, V.P.

Cepheid PP Aquilae. Astron.tsir. no.210:21-22 Ap '60. (MIRA 13:9)

1. Odesskaya astronomicheskaya observatoriya.  
(Cepheids)

TSESEVICH, V.P.

Eclipsing variable star  $\text{W}\text{I}$  Draconis. Astron.tsir. no.210:22-23 Ap  
'60. (MIRA 13:9)

1. Odesskaya astronomicheskaya observatoriya.  
(Stars, Variable)

TSESEVICH, V.P.

Variable 78.1934 Herculis, a star with strongly expressed Blazhko  
effect. Astron.tsir. no.210:23-25 Ap '60. (MIRA 1319)

1. Odesskaya astronomicheskaya observatoriya.  
(Stars, Variable)

TSESEVICH, V.P.

To observers of variable stars. Astron.tsir. no.212:22 Je '60.  
(MIRA 13:10)  
(Stars, Variable)

TSESEVICH, V.P.

Period of RV Coronae Borealis. Astron.tsir. no.213:21-24 J1 '60.  
(MIRA 14:1)

1. Odesskaya astronomicheskaya observatoriya.  
(Stars, Variable)

TSESEVICH, V.P.; GRIGOREVSKIY, V.M.

KZP 4596=214.1935 Cygni. Astron.tsir. no.213:24-25 Jl '60.  
(MIRA 14:1)

1. Odesskaya astronomicheskaya observatoriya, "Mayaki."  
(Stars, Variable)

TSESEVICH, V.P.

Two eclipsing variables. Astron.tsir. no.215:23-24 0 160. (MIRA 14:3)

1. Odesskaya astronomiceskaya observatoriya.  
(Stars, Variable)

TSESEVICH, V.P.

*Y Vulpeculae is a RR Lyrae-type star. Astron. tsir. no. 215:24  
0 '60. (MIRA 14:3)*

1. Odesskaya astronomicheskaya observatoriya.  
(Stars, Variable)

TSESEVICH, V.P.

Four uninvestigated RR Lyrae-type stars. Astron.tsir. no.216:16  
(MIRA 14:4)  
D '60.

1. Odesskaya astronomiceskaya observatoriya.  
(Stars, Variable)

TSESEVICH, V.P.

Algol-type variable star SPZ 310 = KZP 2603 Coronae Borealis.  
(MIRA 14:4)  
Astron.tsir. no.216:18-19 D '60.

1. Odesskaya astronomicheskaya observatoriya.  
(Stars, Variable)

TSESEVICH, V.P.

Algol-type variable star SPZ 629. Astron.tsir. no.216:19-20 D '60.  
(MIRA 14:4)

1. Odesskaya astronomiceskaya observatoriya.  
(Stars, Variable)

TSESEVICH, V.P.

RT Equulei. Astron.tsir. no.216:20 D '60.

(MIRA 14:4)

1. Odesskaya astronomicheskaya ovservatoriya.  
(Stars, Variable)

TSESEVICH, V.P.

V 733 Aquilae is a bright cepheid. Astron.tsir. no.216:20 D '60.  
(MIRA 14:4)

1. Odesskaya astronomicheskaya observatoriya.  
(Cepheids)

TSESEVICH, V.P.

Periods of four RR Lyrae-type stars. Astron. tsir. no.216:21-23  
(MIRA 14:4)  
D '60.

1. Odesskaya astronomiceskaya observatoriya.  
(Stars, Variable)

TSESEVICH, V.P. [TSelevych, V.P.]

Problems relating to the study of outer space. Nauka i  
shyttia 10 no.1:39-42 Ja '60. (MIRA 13:6)

1. Chlen-korrespondent AN USSR, Odessa.  
(Astronautics)

TSESEVICH, Vladimir Platonovich; BOGORODSKIY, A.F., kand. fiziko-matem. nauk, dotsent, red.; GAVRILOV, V.N., red.; ORENSHTEYN, L.Ye., red.; MATUSEVICH, S.M., tekhn. red.

[The path in to space is open] Put' v kosmos otkryt. Pod red. A.F. Bogorodskogo. Kiev, Gos. izd-vo tekhn. lit-ry USSR, 1961. 29 p. (MIRA 14:8)

(Gagarin, IUrii Alekseevich, 1934) (Astronautics)

TSESEVYCH, Vladimir Petrovich; KORPUN, IA.IU.

[Tymoshenko, mechanical engineer and inventor] Mekhanik-vynakhidnykh I.A.Tymchenko. Kyiv, Derztekhvydav, 1961. 60 p.  
(MIRA 15:10)

(Tymochenko, Iosyp Andriiovych, 1852-1924)

TSESEVICH, V.P.; GRIGOREVSKIY, V.M.

Variable star KZP 4596 = 214.1935. Per.zvezdy 13 no.4:290-295  
(MIRA 15:3)  
Mr '61.

1. Odesskaya astronomicheskaya observatoriya.  
(Stars, Variable)

TSESEVICH, V.P.

Variable star 150 1936 Herculis. Astron.zhur. 38 no.2:293-303  
(MIRA 14:4)  
Mr Ap '61.

1. Odesskaya astronomicheskaya observatoriya.  
(Stars, Variable)

ASTAPOVICH, I.S.; BAKULIN, P.I.; BAKHAREV, A.M.; BIRNSEN, V.A.; BUGOSLAVSKAYA,  
N.Ya. [deceased]; VASIL'YEV, O.B.; CRISHIN, N.I.; DAGAYEV, M.M.; . . .  
DUBROVSKIY, K.K. [deceased]; ZAKHAROV, G.P.; ZOTKIN, I.T.; KRISTER, Ye.N.;  
KRINOV, Ye.L.; KULIKOVSKIY, P.G.; KUNITSKIY, R.V.; KURCHAKIN, N.Ye.;  
ORLOV, S.V. [deceased]; POPOV, P.I.; PUSHKOV, N.V.;  
RYBAKOV, A.I.; RYABOV, Yu.A.; SYTINSKAYA, N.N.; TSESEVICH, V.P.;  
SHCHIGOLEV, B.M.; VORONTSOV-VEL'YAMINOV, B.A., red.; POKORNAYA, G.A.,  
red.; KRYUCHKOVA, V.N., tekhn. red.

[Astronomical calendar; permanent part] Astronomicheskii kalendar';  
postoiannia chast'. Izd. 5., polnost'iu perer. Otv. red. P.I. Bakulin.  
Red. kol. V.A. Bronshten i dr. Moskva, Gos. izd-vo fiziko-matem. lit-ry,  
1962. 771 p. (MIRA 15:4)

(Astronomy—Yearbooks)

TSESEVICH, V.P.

Period of PP Aquilae. Astron.tsir. no.227:22-23 P '62,  
(MIRA 16:1)

1. Odesskaya astronomicheskaya observatoriya.  
(Stars, Variable)

KUROCHKIN, Nikolay Yefimovich; TSESEVICH, V.P., otv. red.;  
BRONSHTEIN, V.A., red.

[Instruction for the observation of variable stars] In-  
struktsiia dlja nabliudeniia peremennykh zvezd. Moskva,  
Izd-vo Akad. nauk SSSR, 1963. 36 p. (MIRA 16:5)

1. Chlen-korrespondent Akademii nauk Ukr.SSR (for Tsesevich).  
(Stars, Variable)

YAKOVKIN, A.A., otv. red.; FEDOROV, Ye.P., red.; AKSENT'YEVA, Z.N., red.; BARABASHOV, N.P., red.; BOGORODSKIY, A.F., red.; GORYNYA, A.A., red.; KOVAL', I.K., red.; KOLCHINSKIY, I.G., red.; TSESEVICH, V.P., red.; KOVALENKO, L.D., red.

[Figure and motion of the moon] Figura i dvizhenie Luny.  
Kiev, Naukova dumka, 1965. 135 p. (MIRA 18:7)

1. Akademiya nauk URSR, Kiev.

TSESEVICH, V.P.; MANDEL', O.Ye.

AE Virginis, an RR Lyrae type star. Per. zvezdy 14 no.6:510-513  
(MIRA 18:5)  
D '63.

BABADZHANOV, P.B.; KASHCHEYEV, B.L.; KRAMER, Ye.N.; TSESEVICH, V.P.

Study of meteors during the IGY. Geofiz. biul. no.14:83-88 '64.  
(MIRA 18:4)

KASHCHEYEV, V.L.; TSESEVICH, V.P.; FEDYNSKIY, V.V., doktor fiz.-matem. nauk, stv. red.; ZHITNIKOVA, S.A., red.

[Study of atmospheric circulation in the meteor zone] Is-sledovanie tsirkuliatsii atmosfery v meteornoi zone. Minsk, Nauka, 1965. 63 p. (MIRA 18:4)

1. Politekhnicheskiy institut im. V.I.Lenina, Khar'kov (for Kashcheyev). 2. Astronomicheskaya observatoriya Gosudarstvennogo universiteta im. V.I.Mechnikova, Odessa (for Tselevich).

10 of 10

ARMED GUARD: G. S. Vanchaver, R. L. Kramer, Mr. N., Tsegevitch, V. P.

1. *What is the relationship between the two concepts of the state and the nation?*

TOPIC 11.25. Test methods (part 1) atmospheric density, wind velocity, meteor incidence, etc.

density,  $\rho$ , is the mean of height,  $h$ , at the appearance altitude,  $h_0$ , is the mean of the appearance altitudes of the meteors as a function of their

1855

ACCESSION NO. 10000000000000000000

ASSOCIATION: None

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STB CODE: ES, AA

NO. OF PAGES: 000

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FILATOV, G.S.; TSESEVICH, V.P.

Cepheid BR Vulpeculae. Per. zvezdy 14 no.2:109-114 Je '62.  
(MIRA 17:2)

1. Odesskaya astronomicheskaya observatoriya i Institut  
astrofiziki AN Tadzhikskoy SSR.

BABADZHANOV, P. B.; KASHCHEYEV, B. L.; KRAMER, Ye. N.; TSESEVICH, V. P.

"The Research of the Meteors during the IGY in the USSR."

abstract presented at the 13th Gen Assembly, IUGG, Berkeley, Calif, 19-31 Aug 63.

TSSEVICH, V.P.

Remarkable Cepheid YZ Virginis. Astron. tsir. no. 266:4  
0'63. (MIRA 17:5)

TSESEVICH, Vladimir Platonovich; REZNIKOVSKIY, P.T., red.;  
BRUDNO, K.F., tekhn. red.

[How and what to observe in the sky; handbook for the organization and conducting of amateur scientific observations of heavenly bodies] Chto i kak nabliudat' na nebe; rukovodstvo k organizatsii i provedeniiu liubitel'skikh nauchnykh nabliudenii nebesnykh svetil. Izd.3. Moskva, Fizmatgiz, 1963. 451 p. (MIRA 16:11)  
(Astronomy--Observer's manuals)

TSESEVICH, V.P.

~~██████████~~ New variable star SPZ 1348 Serpentis. Astron. tsir. no. 228:26  
(MIRA 16:6)  
Ap '62.

1. Odesskaya astronomicheskaya observatoriya.  
(Stars, Variable)

TSESEVICH, Vladimir Platonovich; MISHIN, M.M., red.

[A walk in the starry sky] Progulka po zvezdnomu nebu.  
Kiev, Naukova dumka, 1965. 79 p. (MIRA 18:12)

TSIEKHMISTRENKO, Yu.V.

Two-particle excitation of superfluid Fermi-systems. Zhur.  
eksp. i teor. fiz. 37 no.4:1164-1166 0 '59.  
(MIRA 13:5)

1. Institut fiziki Akademii nauk Ukrainskoy SSR.  
(Particles (Nuclear physics))

TSEKHOVOL'SKIY, F.

Paper gas tanks. Znan.sila 35 no.1:34 Ja '60.  
(MIRA 13:5)

(Paper)

TSEKOV, V., kand.tekhn.nauk (Khar'kov)

Using caprone in making parts for the rolling stock of the electric  
transportation system. Zhil.-kom.khoz. 10 no.2:11-13 '60.  
(MIRA 13:5)

(Plastics--Molding) (Streetcars) (Trolley buses)

SOV/58-59-9-20156

Translated from: Referativnyy Zhurnal Fizika, 1959, Nr 9, p 99 (USSR)

AUTHORS:

Tsetlin, B.L., Zaytseva, N.G., Korbut, V.M., Kargin, V.A.

TITLE:

The Effect of Ionizing Radiation on Polymeric Glasses

PERIODICAL:

In the symposium: The Effect of Ionizing Radiation on Inorganic and  
Organic Systems. Moscow, AN SSSR, 1958, pp 363 - 375

ABSTRACT:

The authors made an experimental study of the processes involved in the radiation destruction of some vitreous polymers. They investigated the changes which the thermomechanical characteristics and the endurance of the polymers undergo as a result of irradiation. They also studied the gas formation and development of dendritic cracks that irradiation causes in polymeric glasses. On the basis of the results obtained, the authors discuss some regularities in the influence that the chemical nature of the polymers exerts upon the direction and rate of the radiochemical changes they undergo. A study of the character of the dendritic cracks which develop in various organic glasses under the action of irradiation, permitted the authors to voice some considerations in support of the hypothesis advanced earlier concerning the adsorption mechanism involved

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TSESHINSKAYA, N.I.

KURSANOV, L.I., professor; NAUMOV, N.A.; KRASIL'NIKOV, N.A.; KRASIL'NIKOV, N.A.; GORLENKO, L.I.; TSESHINSKAYA, N.I., redaktor

[Classification of the lower plants] Opredelitel' nizshikh rastenii;  
v plati tomakh. Moskva, Gos. izd-vo "Sovetskaya nauka," Vol. 3. [Fungi]  
Griby. 1954. 453 p. (MLRA 8:5)  
(Fungi)

KOMARNITSKIY, N.A., prof.; TOMIN, M.P., akademik; KRASIL'NIKOV, N.A.,  
prof.; KURSANOV, L.I., prof., red.; TSESHINSKAYA, N.I., red.;  
PARSADANOVA, K.G., red. izd-va; PAVLOVA, V.A., tekhn. red.

[Classification key of lower plants in five volumes] Opredelitel'  
nizshikh rastenii v piati tomakh. Moskva, Gos. izd-vo "Vysshiaia  
shkola," Vol.5. [Lichens, bacteria, and actinomycetes] Lishainiki,  
bakterii i aktinomitsety. Pod obshchei red. L.I.Kursanova. 1960.  
(MIRA 14:9)

290 p.

(Lichens)

(Bacteria)

(Actinomycetes)